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January 20, 2006

Ms. Sandee Stolorski  
CGI Adjusters, Inc.  
300 Burnett Street  
Ft. Worth TX 76102

RECEIVED  
JAN 25 2006

Re: Claim No: 2005200442  
Insured: Hubert Smith  
Subject: Report of Findings  
RCG File No: 5222124

Dear Ms. Stolorski:

Mr. Smith reported that his residence was heavily damaged by Hurricane Katrina on August 29, 2005. The residence was located at 61 Bayou Circle in Gulfport, Mississippi.

Rimkus Consulting Group, Inc. was retained by Ms. Sandee Stolorski, on behalf of CGI Adjusters, Inc. We were specifically asked to determine the damage to the residence and shed caused by the hurricane winds versus the structural damage caused by the associated storm surge and the waves. Mr. James Overstreet, under the direction of Mr. Thomas E. Heifner P.E., performed our visual inspection of the property on December 1, 2005. Mr. & Mrs. Smith were present for the inspection and provided information. The weather data used during our evaluation was obtained from Compu-Weather, Inc. and the National Oceanic and Atmospheric Administration (NOAA).

### CONCLUSIONS

The following conclusions were made after our site visit and a review of the field notes and the photographs. Our opinions are as follows:

1. There was evidence that the residence had moved because several columns were leaning, several doors would not close properly, and some of the footings had bulged out of the ground. This movement was a result of the storm surge.
2. There was evidence of 25-feet of storm surge as indicated by watermarks on neighboring property, and the fact that everything throughout the second story had been replaced.

## INTRODUCTION

Hurricane Katrina was one of the strongest storms to impact the coast of the United States during the last 100 years. After crossing the Florida peninsula and entering the Gulf of Mexico, Hurricane Katrina strengthened to a Category 5 hurricane as defined by the Saffir-Simpson scale. On August 28, 2005, approximately 250 miles south-southeast of the mouth of the Mississippi River, Hurricane Katrina's winds reached their peak intensity of 175 mph and the atmospheric pressure fell to 902 millibars.

According to the published weather data, the highest wind gusts measured along the Mississippi gulf coast on August 29, 2005 were a 90 mph gust at Keesler Air Force Base in Biloxi; a 63 mph gust at Gulfport-Biloxi Regional Airport in Gulfport; and a 50 mph gust at Naval Station Pascagoula. Winds as high as 125 mph likely occurred near the point of the hurricane's landfall at the Louisiana-Mississippi border.

Along the Mississippi gulf coast, there were reported storm surges of 11.3 feet at Green Pass; 12.1 feet at Pascagoula; and 26.0 feet on the Biloxi River at Wortham, and reports of 30.0 feet in Hancock County.

## OBSERVATIONS

The residence was a three-story, wood-framed structure. The foundation was a concrete slab-on-grade with the second and third levels supported by wooden columns. The exterior walls were covered with vinyl siding. The roof was covered with asphalt composition shingles. For purposes of this report, the front of the residence was reported to face south (**Photograph 1**).

During the course of our site visit, we observed the following:

- Much of the damage and debris had been removed at the time of the inspection. The inspection consisted of a tour guided by Mr. & Mrs. Smith. The bottom two stories had all the water damaged gypsum board and electrical fixtures removed and replaced at the time of the inspection. The third story was undamaged.
- There was storm surge evidence on the second story of neighboring residence (**Photograph 6**).
- There were several columns which were split. Paint and caulk were in these splits which indicated a pre-existing condition (**Photograph 2**). Others columns appear to be recently split. A great number of the supporting columns were found to be out of plumb as indicated by placing a level on them (**Photograph 4**). Some of the columns were severely out of plumb. Virtually all the supporting columns or columns on the southeast corner of the residence were found to be leaning to the north and the west which was the direction the winds blew and the storm surge flowed.



- Additionally, due to overwhelming evidence of the structural movement, Mr. Smith had taken it upon himself to hire a contractor to make the structural repairs (Photograph 3).
- On the northeast portion of the residence, there were several supporting columns that appeared to have bulged upward to the extent that a mound was evident. Additionally, a level was placed on several columns on the northeast portion of the residence and they were found to be leaning to the east.
- There were several windows on the eastern side of the residence that had been blown in by winds out of the east.
- The front door to the residence would not open and close properly.
- A door on the third story would not open and close properly.
- A portion of the roof awning over the front door had been blown away from the winds out of the south.

### ANALYSIS

There was extensive structural damage to the residence in the form of split columns and columns that were leaning. The columns on the northwest corner of the residence were found to be leaning to the northwest which was the direction the winds blew and the storm surge flowed. The columns on the southeast corner, or opposite corner, were found to be leaning to the southeast which was the direction in which the storm surge returned to the sea. The columns in this area were found to have bulges where the footings were located.

With winds reported to be in excess of 100 mph, the damage to the residence would likely have included missing shingles, trim, flashing, and gutters. Tree limbs and other flying debris could cause broken windows on the windward side. Vinyl siding may have been removed in some spots. If shingles were removed, rain would have entered the residential envelope and caused the water damage to the attic insulation, or the ceiling and wall gypsum board.

Due to the extent of the structural damage to the residence, the storm surge accounted for the damage to the lower two stories of the residence.

This report was prepared for the exclusive use of CGI Adjusters, Inc. and was not intended for any other purpose. Our report was based on information made available to us at the time of our inspection. Should additional information become available, we reserve the right to determine the impact, if any, the new information may have on our opinions and conclusions and to revise our opinions and conclusions if necessary and warranted. Photographs taken during our work are retained in our files and are available to you upon request.

If you have any questions or need additional assistance, please call.

Sincerely,

RIMKUS CONSULTING GROUP, INC.

*James Overstreet*  
James Overstreet (84)  
Consultant

*Thomas E. Heifner*  
Thomas E. Heifner, P.E.  
Mississippi Reg. Eng. No. 7727  
Senior Consultant

Attachments: Photographs

